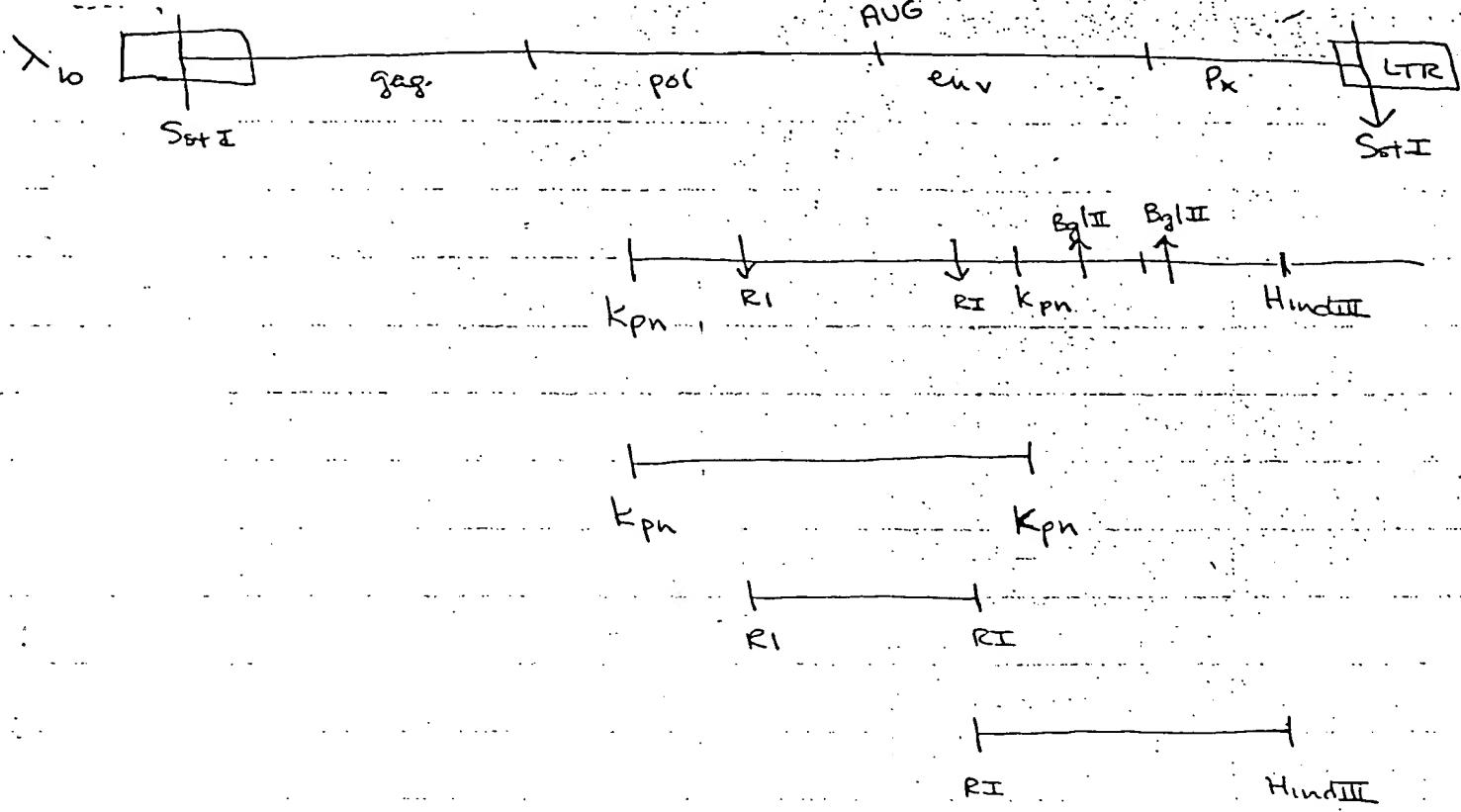


659339

FIGURE 1

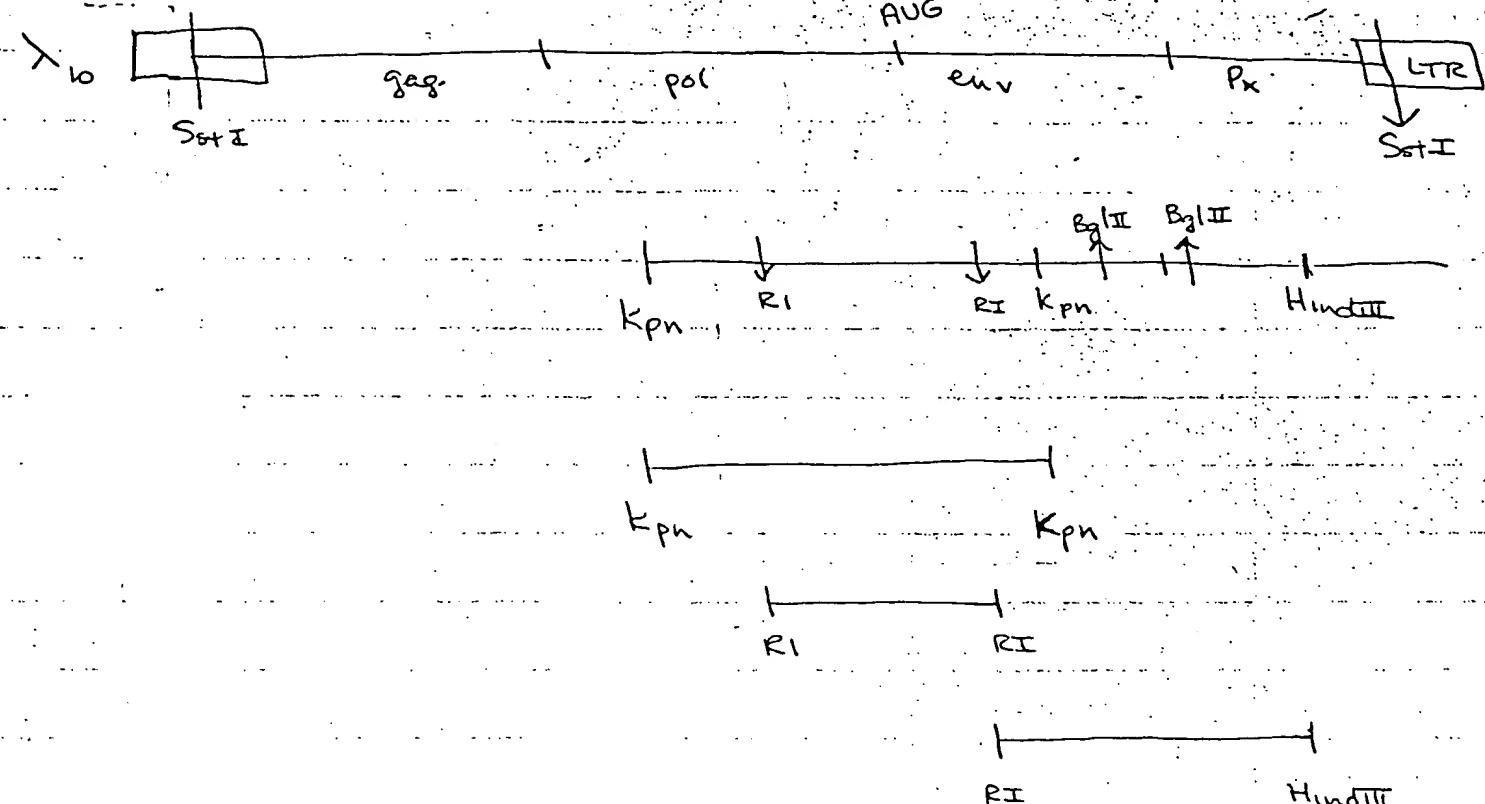


1b

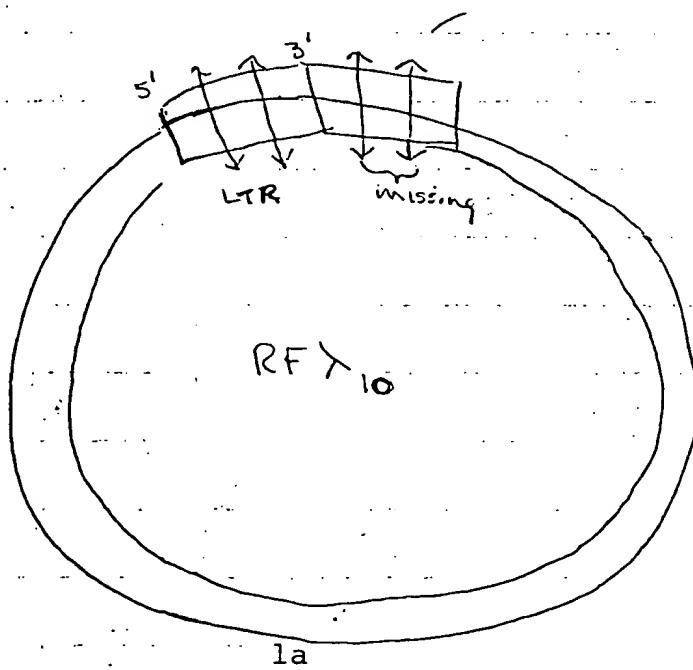
Best Available Copy

659339

FIGURE 1

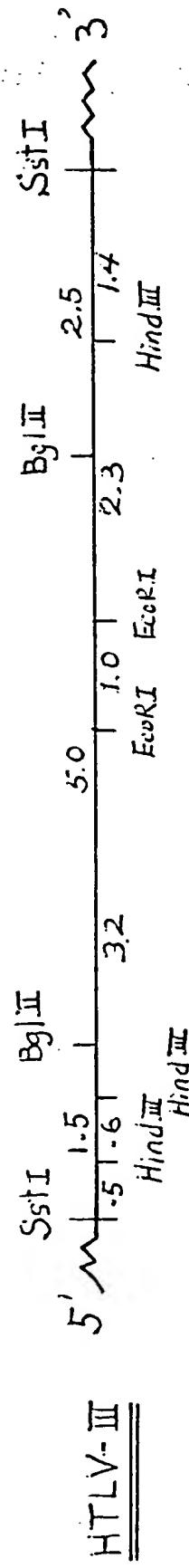


1b



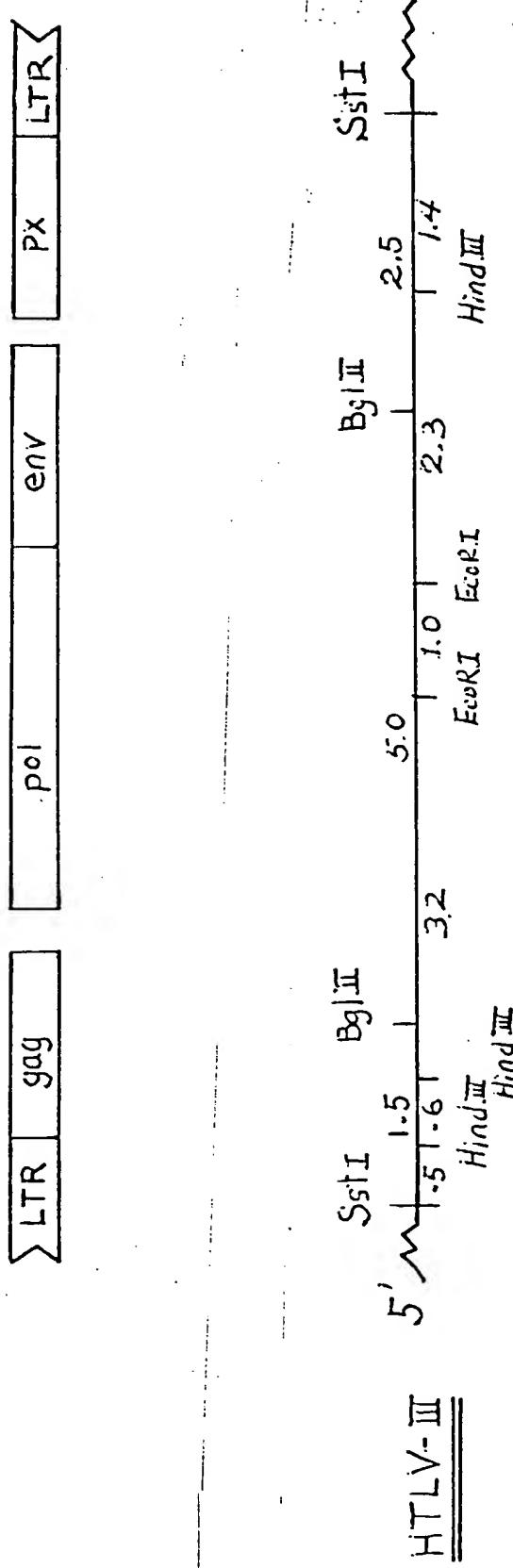
659339

FIGURE 2



659339

FIGURE 2



10 20 30 40 50 60 70  
 AAAACTGAG TTTCAAGGAA TTATCTTACG TTTCAGGAA TCAAGATTAG AAGTAACGAT AATTAACGAC  
 80 90 100 110 120 130 140  
 GACGATATAA TATTAGGAA CATTCAAGGA CAACGAGATA AAAGTGAAATC AGAGTTTACG AATCAATAA  
 150 160 170 180 190 200 210  
 TAAUAGCTTT ATTAAGAAAG CAAAAAGGCTT ATCTGGAAAG CCTACCCGCA CACAAACGAA TTGAGGAA  
 220 230 240 250 260 270 280  
 TAAACAGTTT GATTAATTAG TCACTCTCG TATCAAGGAA ATACATTTTT TADATGGAAT AGATAAGGCG  
 290 300 310 320 330 340 350  
 TAAAGATTTT ATTAACAAATA TCAGCTTAAT TCGAGAGCAT TCGCTAGTCA TTTCACGCTT CGACGCTGAG  
 360 370 380 390 400 410 420  
 TGGCAAGGAA ATATGAACTTC AGCTGTTGAA ATATCTGAGT AAAAGGAGAA CGCATCGATG GACAACTGAA  
 430 440 450 460 470 480 490  
 TGTAGGCGGAA CGAAATGAGGAA RACTAGATTG TACACATTAA GAAGUAAAAG TTATCTCTGT AGCACTTCA  
 500 510 520 530 540 550 560  
 CGTACCGACTG CATACTATACA AGCAAGACTT ATTCGACCGAG AAACAGGGCGA GGAACACGCA TATTTCTTT  
 570 580 590 600 610 620 630  
 TAAAGTTAGC AGGAAAGATG CGAATAAAAA CAATACATAC AGACAATGGC ACCAATTTCG CGACTCTGAG  
 640 650 660 670 680 690 700  
 CGTTAAAGGC CGCTGTTGGT CGCGCGGGAAAT CAACGAGGA TTTCGGAAATTG CCTACAAATCG CGAAAGTCAG  
 710 720 730 740 750 760 770  
 CGAGCTAGTAG AATCTATGAA TAAAGGAAATTAA AADAAAATTAA TAGGACAGGT AAGAGATCAG GCTGAACATC  
 780 790 800 810 820 830 840  
 TTAAGACAGC AGTACAAATG GCAGTATTCA TCCACAAATTG TAAAGGAGAA GGGGGGATTG GGGGGTACAG  
 850 860 870 880 890 900 910  
 CGAGGGGAA AGAATAGTAG ACATAATAGC AACAGACATA CAAACTAAAG AATTACAAAAA ACAAAATTACA  
 920 930 940 950 960 970 980  
 GAAATTCAAA ATTTTCGGGT TTATTACAGG GACAGGAGAA ATCCACTTTC GAAAGGACCA CGAAAGCTCG

FIGURE 3

A

10 20 30 40 50 60 70  
 AAAAATGCG TTTGAGGCGA TTTCATCTAGC TTTCGAGGAT TCGGATTAG AAGTAACGT AATGACAGAC  
 80 90 100 110 120 130 140  
 CGCAATATG CATTGAGGAT CATTGAGGCA CAAACGAGATA AAAGTGAGTC AGAGTTAGTC AATGAAATAA  
 150 160 170 180 190 200 210  
 TACAUAGTT ATTAAGAAAG CAAAAAGGCTT ATCTGGATG CGTACCCACCA CGAAAGGAA TTGGAGGAG  
 220 230 240 250 260 270 280  
 TAAACAGTTT GATTAATAGC TCACTCTCG AATGAGGAA AATGATTTT TACATGGAT AGATAAGGCC  
 290 300 310 320 330 340 350  
 CGAGATTTG ATGAGAAATA TCAGCTTAAT TCGAGAGCAT TCGCTAGTC 1TTTAACGCTG CGACGCTGAG  
 360 370 380 390 400 410 420  
 TGGGAGGAA GATAGTAACTG AGCTGTGATA ATGTCAGCT AAAAGGAGAA CGCATCGATG GACAACTGAG  
 430 440 450 460 470 480 490  
 101AU,CGG CCGATGCGG AACTGAGTTG TACACATTG GAAAGAAAAG TTATGCTGCTG AGCAATTGAT  
 500 510 520 530 540 550 560  
 CGACGCTG GATATATAGA AGCAAGGTT ATTCCACCGAG AAACAGGGCA GGAACACGCA TATTTCTTT  
 570 580 590 600 610 620 630  
 TAAAGTTAGC AGGAGATGCG CGACTAAAGA CAAACATAC AGACAATGGC ACCAATTTCG CGAGCTCTAC  
 640 650 660 670 680 690 700  
 CGTTAAAGCG CGCTGTTGCT CGCGCGGAAAT CAAECAGGAG TTTGAAATTG CGTACAAATCG CGAAAGTCAG  
 710 720 730 740 750 760 770  
 CGACTAGTAG AATCTATGAG TAAAGAATTG AADAAAATTG TAGGACAGGT AAGAGATCAG GCTGAACACATC  
 780 790 800 810 820 830 840  
 TTAAGACAGC AGTACAAATG CGAGTATTCA TCCACAAATTG TAAAAGAAAAA GGGGGGATTG GGGGGTACAG  
 850 860 870 880 890 900 910  
 CGCAGGGGAA AGAATAGTAG ACATAATAGC AACAGACATA CAAACTAAAG AATTACAAAAA ACAAAATTACA  
 920 930 940 950 960 970 980  
 GAAATTCAAA ATTTTCGGGT TTATTACAGG GACAGGAGAA ATCCACTTTG GAAAGGACCA CGAAAGCTCG

FIGURE 3B

FIGURE 3B

990	1000	1010	1020	1030	1040	1050
TCTGGGAAAC	TTGGGGGCA	ACTAAATAC	ACGATGATAG	TCACAA	AAA	GTAGTCGCAA
1060	1070	1080	1090	1100	1110	1120
AACGATCATT	ACGGATTATG	AAAAACAGAT	GGCAAGGTAT	CATTGTGTTG	CAAGTACAGA	GTATGAGGAT
1130	1140	1150	1160	1170	1180	1190
TGAGACATGG	AAAATTTTAA	TTAAACACCA	ATGTTATGTT	TCAGGAAAG	CTACGGGATG	CTTITATAGA
1200	1210	1220	1230	1240	1250	1260
CATCACTATG	AAAGCCCTCA	TCACAGAAAT	ACTTCAGGAG	TACADATCCG	ACTAAGGGAT	GTGAGATTGG
1270	1280	1290	1300	1310	1320	1330
TAATTAACAGG	ATGT10GGGAT	CTGCATACAG	GAGAAABAGA	CAGGCAATTG	GTGAGGGAG	TGTCATAGA
1340	1350	1360	1370	1380	1390	1400
ATGGACGAAA	AAADACATATA	CCACACAAAT	ADACCCCTAA	CTACCAAGGAC	ACACTAATTC	1CTGTATTAC
1410	1420	1430	1440	1450	1460	1470
1TTGTCTGTT	TTTCAGGACTC	TCCTATAAGA	AAACGGCTTAT	TACGAGACAT	AGTTAGGGCT	AGGTGTGGAT
1480	1490	1500	1510	1520	1530	1540
ATGAAAGCGG	ACATACAAAG	GTACCGATTC	TACAATACTT	GGCACTACCA	CCATTAATAA	CAACAAAGAA
1550	1560	1570	1580	1590	1600	1610
GATAAAACCA	CUTTTGGCTA	GTGTTACTTA	ACTGAGAGAG	GATACTCGA	ACAAGCCCGA	GAAGAGACCA
1620	1630	1640	1650	1660	1670	1680
GGACCCACGA	GGGAGCCAGA	CAATGAAATG	ACACTAGAGC	TTTTAUGGAA	GTCTAAGGAT	GAACGTTGTT
1690	1700	1710	1720	1730	1740	1750
GACATTTTCC	TAAGGATTGG	CTCCATGGCT	TAGGCGAAC	TATCTATGAA	ACTTATGGG	ATACTTGGG
1760	1770	1780	1790	1800	1810	1820
ACGAG1GGAA	CCCTATAATG	GAATTCTGCA	ACAAACTGCT	TTTATCCATT	TTCAGAAATT	GGTGTGCGAC
1830	1840	1850	1860	1870	1880	1890
TAUCCAGAATA	GGCGTTACTC	GACAGAUGAG	ACCAAGAAAT	GGAGGCCAGCA	GATCCTAGAC	TAGAGCCCGG
1900	1910	1920	1930	1940	1950	1960
AAGUATECGAG	GAAGTCAGCC	TTAAACTGCT	TGTACCAATT	GCTAT1GTA	AAACTGTTGC	TTTCATTGCG
1970	1980	1990	2000	2010	2020	2030
AAGTTTGTTT	CATAACAAAAA	CCCTTAGGCA	TCTCCTATGG	CAGGAAGGAG	GGGAGACAGC	GAAGAAAGAC
2040	2050	2060	2070	2080	2090	2100
GGCTCAAGGG	AGTCAGGACTC	ATCAAGTTTC	TCTATCAAAG	CAGTAAGTAG	TAGATGTAAT	CCAACCTATA
2110	2120	2130	2140	2150	2160	2170
CAAAATGCAA	TAATGAGCATT	AGTAGTACCA	ATAATAATAC	CAATAGTTGT	GTGGTCGATA	GTAACTCATAC
2180	2190	2200	2210	2220	2230	2240
AAATATAUGAA	AAATATTAACG	CAAAGAAAAAA	1AGACAGGTT	AATTGATADA	CTAATGAGAA	GGACGAGAAC
2250	2260	2270	2280	2290	2300	2310
CAGTGGCAAT	GAGAGTGAAG	GACAAATATC	AGCAGCTTG	GAGATGGGCG	TGGAGATGGG	GGACGATGCG
2320	2330	2340	2350	2360	2370	2380
GTGTTGAAAT	1TGATGATAC	GTACTGCTAC	AGGAAAGATTC	TGCGGTCACAG	TCTATTATCG	GGTACGCTG

659339

990 1000 1010 1020 1030 1040 1050  
TCTGGGAGGCTGAGGAGGCA TACTAAATAC AACGATGATAG TGAC B GATGTCGCAA GAGGAGGCG  
1060 1070 1080 1090 1100 1110 1120  
AAGGATCATT AGGGATTATG GAAAACAGAT GCGAGGTTAT CATTGATGTCG CAAGTACAGA GATGCGGAT  
1130 1140 1150 1160 1170 1180 1190  
TAAAGCATGG AAGAATTGTTAG TAAACACCCA TATGTTGTT 1CAGGUAAGS CTGGGGGTC GTTGTAAAGA  
1200 1210 1220 1230 1240 1250 1260  
GATCACTATG AAAGGCGCTCA TCCAAAGAAATG AGTTGAGGAG TACACATGCC ACTAGGGGAT GGTGGATTGG  
1270 1280 1290 1300 1310 1320 1330  
TAACTAAGGAG ATAT106661 CTGGATACAG GAGAAGGAGA CCGGATTTG GTCAGGGAG TGTGATAGA  
1340 1350 1360 1370 1380 1390 1400  
ATGGAGGAAAG AGGAGATAATAG GCGACACAACT AGACCGCTCA CTACGAGAGC AACTAATTCG TGTGATTTAG  
1410 1420 1430 1440 1450 1460 1470  
TTTGTGTTT TTTGAGGAGTC TGGTATAAGA AAGGGCTTAT TAGGAGGAGT AGTTAGGGCT AGGTGTTGAG  
1480 1490 1500 1510 1520 1530 1540  
ATCGAAGCGGG ACATAAACAAAG GTACGGATGTC TACAAATACTT GGCAGCTAGCA CGAATTAATAGA GACCAAAAGA  
1550 1560 1570 1580 1590 1600 1610  
GATAGAAGGCA CTTTGGCTA GTGTTACTTA ACTGACAGAG GATAGATGAG AGAAGGCCCCA GAAAGGACCA  
1620 1630 1640 1650 1660 1670 1680  
GGGGGAGGAGA GCGAGGCGAGA CAATGAAATGG AGACTAGAGC TTTTAAGGAA GCTTAAGGAT GAAAGCTTTA  
1690 1700 1710 1720 1730 1740 1750  
CACATTTTCCG TGGGATTTGG CTGCA1GGCT TGGGCGAACCA TATCTATGAA ACTTATGGGG ATACTTGGGC  
1760 1770 1780 1790 1800 1810 1820  
AGGAGTGGAA CGCATAATAAGA GAAATTCTGCA ACAACTGCTG TTTATCCATT TTCACAAATTG GGTGTCGACA  
1830 1840 1850 1860 1870 1880 1890  
TACCGAGAATA GCGGTTACTC GACAGAUGAG AGCAAGAAAT GGAAGGAGCA GATCCTAGAG TAGAGCCCGG  
1900 1910 1920 1930 1940 1950 1960  
AAGGATCCAG GAAAGTCAGGCC TAAAACTGCT TGTACCAATT GCTAT10TAA AAGACTGTTGC TTTGATTGGC  
1970 1980 1990 2000 2010 2020 2030  
AAGTTTGTTC CATAACAAAAA CGCTTAGGCA TCTGCTTATGG CAGGAAGGAG CGGAGACAGC GACGAAAGACG  
2040 2050 2060 2070 2080 2090 2100  
GGCTCAAGGC AGTCAGGAGTC ATCAAGTTTC TCTATCAAAG CAGTAAGTAG TACATGTAAT CGAACCTATA  
2110 2120 2130 2140 2150 2160 2170  
GAAATAGGCA TGGTAGGATT AGTAGTGGCA ATAATAATAG CAGTAGTTGT GTGGTCCATA GTAATGATAG  
2180 2190 2200 2210 2220 2230 2240  
GAAATAGGCA AATATTAAGA CAAAGAAAAA TAGACAGGTT AATTGATAGA CTAATGAGAA GACCAAAAGA  
2250 2260 2270 2280 2290 2300 2310  
GAGTGGCAAT GAGAGTGGAG GAGAAATATC AGCACTTGTG CAGATGGGGC TGGAGATGGG CGACGATGG  
2320 2330 2340 2350 2360 2370 2380  
GCTTGGATG TGTGATGATC GTACTGCTAC AGGAAATGTTG TGGGTGAGAG TGTATTGAG GGTGCTGCG

659339

2370 2400 2410 2420 2430 2440 2450  
 TCGAAGGAGG CAAACGACAC TCTATTTCTG GCAATCAGATG CTAACCGATA TGATACAGAGG CTCACATAAT  
 2460 2470 2480 2490 2500 2510 2520  
 GTTTCGGCGA CACATCGCTG TCTACCCACA GAGCCCGAACG CACAAAGAACT AGTATTCGTA ATGTCACAG  
 2530 2540 2550 2560 2570 2580 2590  
 AAAATTTTAA CATGCGAAA AATGACATCG TAGAACAGCT GCAATCAGATG ATAATCATTG TATCGGATCA  
 2600 2610 2620 2630 2640 2650 2660  
 AACCGTAAAGG CGATGTTGAA AATTAACCCC ACTGTGTTTTT AGTITAACTG GCACTGTTT GAGGAGTGT  
 2670 2680 2690 2700 2710 2720 2730  
 ACTAATGCG ATAGTACTAG CGGGACGATG ATAATCGAGA AACGAAAGAT GAAAGACTGC TCTTCAAGA  
 2740 2750 2760 2770 2780 2790 2800  
 TCAACGAGAC CATAACAGCT AAGGTCGAGA AAGGATATGC ATTTTTTTAT AAACCTGAGA TAATACCAAT  
 2810 2820 2830 2840 2850 2860 2870  
 AGATAAGCT ACTACGAGCT ATAGGTTGAC AAGTTGTAAG ACCTCAGTC TTACACAGG CTGTCGAAAG  
 2880 2890 2900 2910 2920 2930 2940  
 GTCAGCTTG AGCGAATTGC CATACTTTAT TCTGGGGGGG CTGGTTTTGC GATTCTAAAA TCTAATAATA  
 2950 2960 2970 2980 2990 3000 3010  
 AGCGGTTAA TCGAACAGGA CGATGTTACAA ATGTCAGGAC AGTACGATGT ACACATGGAA TTAGGGCACT  
 3020 3030 3040 3050 3060 3070 3080  
 AGTATGCACT CAACTGCTGT TAAATGCGAG TCTACGAGAA GAAGACGTTG TAATTAGATC TGTCAATTG  
 3090 3100 3110  
 ACCGGACAACTG CTAAACCGAT AATAGTACAGG CT

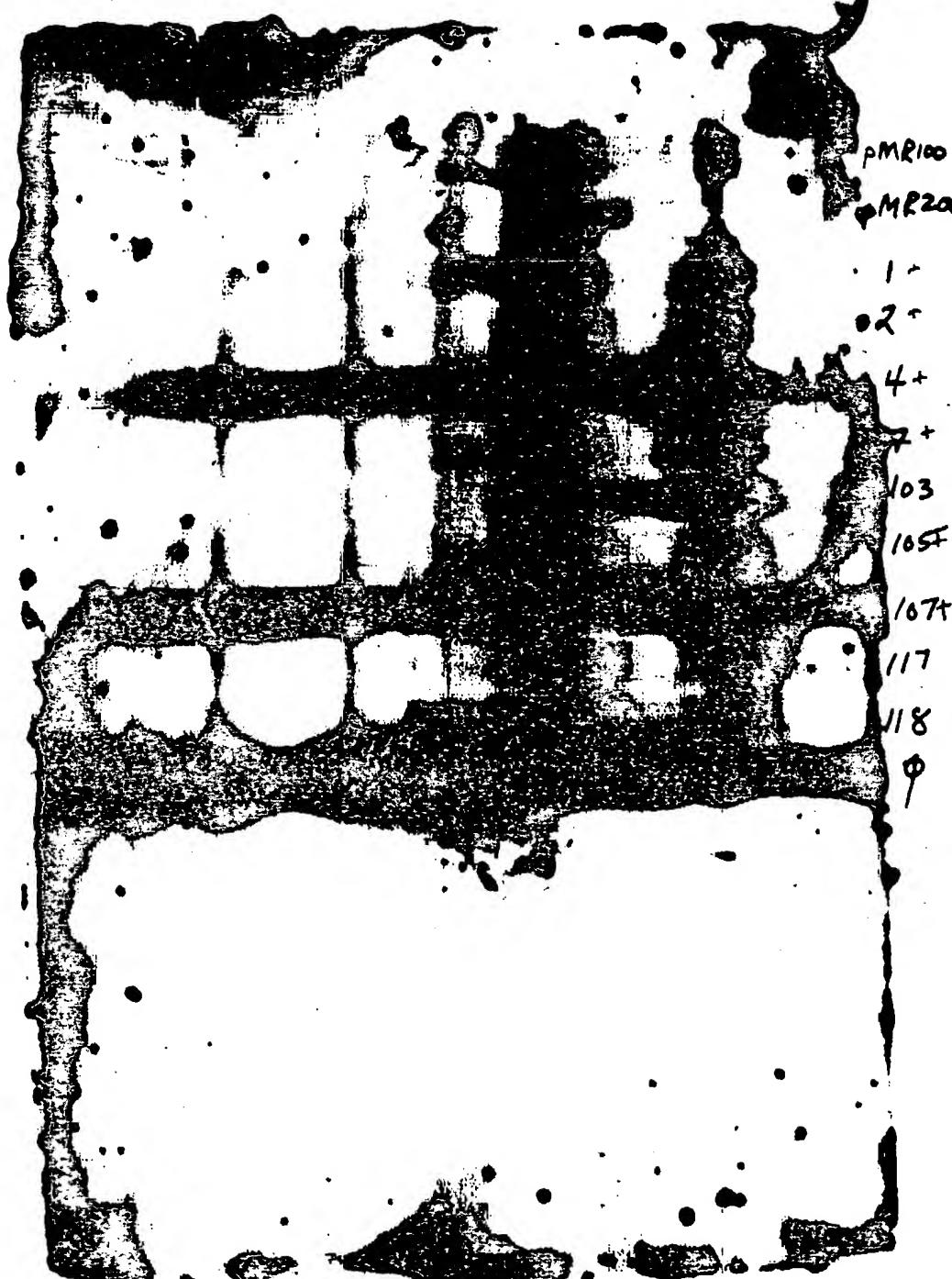
FIGURE 3C

659339

2340 2400 2410 2420 2430 2440 2450  
 TGGAAACGAG CAAACACACG TCTATTTTGT GCGATCAGATG CTAACACATA TGATACAAAGA GGTACATAAT  
 2460 2470 2480 2490 2500 2510 2520  
 GTTTGGGCGA CACATGGCTG TGTACCCACA GACGGGAAAC CAGAAGAACT AGTATTCGTA AGTGTGACAG  
 2530 2540 2550 2560 2570 2580 2590  
 AAAATTTTAH GATGTGGAAA AATGACATGAG TAGAACAGAT GCGATGGGAT ATAATCATTG TATGGGATGA  
 2600 2610 2620 2630 2640 2650 2660  
 AACGCTTAAAC CGATGTGTTAA AATTAAACCCG ACTGTGTGTT AGTITAAACT GCGACTGTTT GAAAGAATGAT  
 2670 2680 2690 2700 2710 2720 2730  
 ACTAATAGCG ATAGTGTGAG CGGGAGGATG ATAATGGAGA AACGGAGATG GAAAGACTGC TGTTCGAA  
 2740 2750 2760 2770 2780 2790 2800  
 TGAAGGAAAG CATAAGAGGT AGGGTGGAGA AGGGATATGC ATTTTTTTAT AACCTGTTA TAATACCAAT  
 2810 2820 2830 2840 2850 2860 2870  
 AGATAATGAT ACTACCAAGCT ATAGGTTGAC AGTTGTAAG ACCTCAGTCG TTACACAGGG CTGGTCCAAAG  
 2880 2890 2900 2910 2920 2930 2940  
 GTCGGTTG AGGGAAATTGC CATACTTAT TGTGGGGGGG CTGGTTTTGC GATTCTAAAA TGTAAATAATA  
 2950 2960 2970 2980 2990 3000 3010  
 AGGGGTTGAA TGGAAACAGGA CGATGTACAA ATGTCACGAC AGTACAGATGT AGACATGGAA TTABGGGAGT  
 3020 3030 3040 3050 3060 3070 3080  
 AGTATGAACT CAACTGCTGT TAAATGGAG TCTACGAAAGA GAAAGGTTAG TAATTAGATC TGTCAATTTG  
 3090 3100 3110  
 ACCGGACAAATG CTAACACCAT AATAGTACAG CT

FIGURE 4

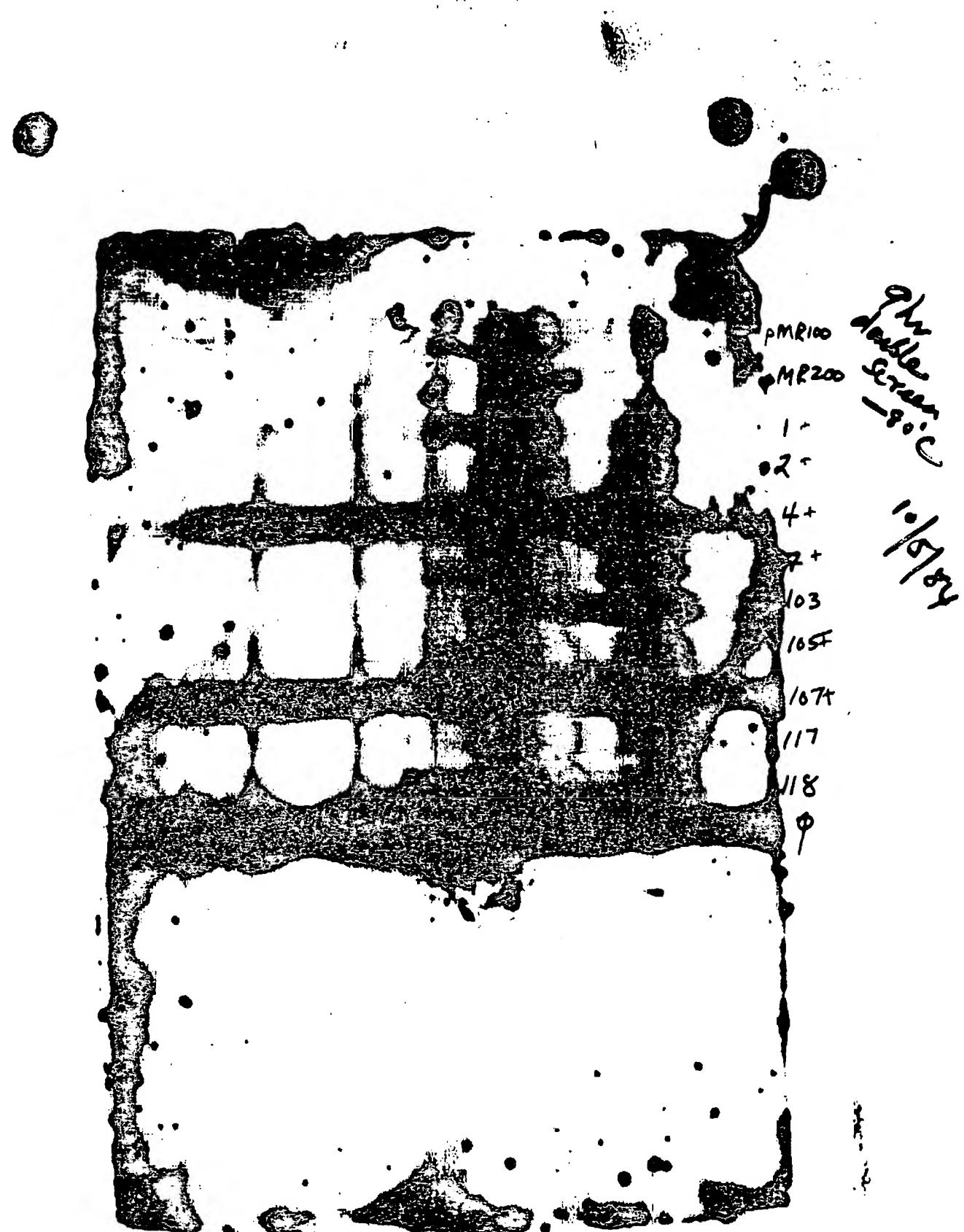
659339



DR  
Dental  
Extrac  
180°C  
10/5/84

FIGURE 4

659339



990 1000 1010 1020 1030 1040 1050  
TCTGCGAAGGC TGGAGCGGCGA CCGCTAACTAC AGAGATGATAG TGGACATGAA GTAGTGCCTAA CAGAGAAGGC  
1060 1070 1080 1090 1100 1110 1120  
AAGAGATCATT AGGGATTATG GAAAACGAGT GCGAGGTTATG CATTGTTGTCG CAACTACACG CGATGAGGAT  
1130 1140 1150 1160 1170 1180 1190  
TGGAGACATGG AGAGATTGTTAC TAAACACCGA TATGTTAGTT 1GAGGUAAGG CTAGGGGATG CTTTTATAGA  
1200 1210 1220 1230 1240 1250 1260  
CATCACTATG GAAAGCCCTCA TCCAAAGGATG AGTTCAGGAG TACACATGCC ACTAGGGCAT GGTAGATTGG  
1270 1280 1290 1300 1310 1320 1330  
TAATACGAGG ATATTCGGGAT CTGCGATACAG GAGAAGBAGA CCGGCGTTG GGTCAAGGCG TGTCCATAGA  
1340 1350 1360 1370 1380 1390 1400  
ATCGAAGGAA AGAGATATAG AGACACAACT AGACCCCTGA GTAGGAGGAC AGCTAATTCG TGTGTATTAG  
1410 1420 1430 1440 1450 1460 1470  
TTTGACTGTT TTTCAGACGT TGGTATAAGA AAGGGCTTAT GAGGGACAT AGTTAGCCCT AGGTGTTGAG  
1480 1490 1500 1510 1520 1530 1540  
ATCGAAGGCG AGATAGCAAG GTAGGATCTC TACAACTACTT GCGCACTACG CGATTAATAA CACCAAAAGA  
1550 1560 1570 1580 1590 1600 1610  
GATAGAGCGA CTTTGCCTA GTGTTACTTA AGTCACAGAG GATAAGTGGG ACAAGCCCGA GAAAGACCGA  
1620 1630 1640 1650 1660 1670 1680  
GGGCCACGGG GCGAGCCGAG CAATGAAATGG AGACTAGAGC TTTTAAGGAA GGTAAAGAAT GAAAGCTTTA  
1690 1700 1710 1720 1730 1740 1750  
GACATTTTCC TAGGATTGG CGCCATGGCT TGGGCGACA TATCTATGAA ACTTATGGGG ATACTTGGGC  
1760 1770 1780 1790 1800 1810 1820  
ACCAAGGAAA GCGATAATAA GAAATTCTCGA ACAACTGCTG TTTATCCATT TTCAGAAATTG GGTGTCGACA  
1830 1840 1850 1860 1870 1880 1890  
TACCGAGATA GGCCTTACTC GACAGAUGAG ACCAAGAAAT GGAAGCAGCA GATCGTAGAC TAGAGCCCGG  
1900 1910 1920 1930 1940 1950 1960  
AAGGATCCAG GAAAGTCAGCC TAAACTGCT TGTACCAATT GCTATTCGAA AAAGTGTTCG TTTCATTGCC  
1970 1980 1990 2000 2010 2020 2030  
AAGTTTGTTT CATAACAAAA CGCTTAGGCA TGTGCTATGG CAGGAAGGAG CGGAGACAGC GACGAAGACCG  
2040 2050 2060 2070 2080 2090 2100  
GGCTCAAGGG AGTCAGACCTC ATCAAGTTTC TGTATCAAAG CAGTAACTGAG TACATGTAAT CGAACCTATA  
2110 2120 2130 2140 2150 2160 2170  
CAATAGCGA TGTAGCGATT AGTAGTGGCA ATAATAATAG CAATAGTTGT GTGGTCCATA GAAATCGATA  
2180 2190 2200 2210 2220 2230 2240  
GATATAGGA GATATTAGGA CAAAGAAAAA TAGACAGGTT AATTGATAGA CTAATADAGA CACCAAGAAC  
2250 2260 2270 2280 2290 2300 2310  
GAGAGCTGAG GAGGAGTATCG AGCAGCTGTT GAGATGGGGG TGGAGATGGG CGACGATGG  
2320 2330 2340 2350 2360 2370 2380  
GCTTGGGATG TGTATGATC GTACTGCTAC AGGAAAGATG TGGGTGAGAG TGTATTGAGG GGTGCTGTC

16

FIGURE 3

A

10 20 30 40 50 60 70  
 AAAACTGAG TCGCAAGGAA TTTCAGGAT TTTGGAGGT TCAACATTAA AGTAAGGT AATTCAGGAC  
 80 90 100 110 120 130 140  
 CACAAATG GATTGGAT CCTTCAGGAA CAAACGAGATA AAAGTGAATC AGAGTTAOTC AATCAATAA  
 150 160 170 180 190 200 210  
 TACAGCCTT AATTAAGAAAG CAAAAAGCTT ATCTGGATG CCTACCCACCA CACAAACGAA TTGGAGGAA  
 220 230 240 250 260 270 280  
 TAAACAGTTT GATTAATTAC CGAGTCTCG AATCAGGAAA ATACIATTTT TADATGGAT AGATAAGGCC  
 290 300 310 320 330 340 350  
 TAAAGATGTC ATGAGAAATA TCAGCTTAAT TGGAGGACAT TGGCTAATCG TTTTAACCTG CGACCGCTGAG  
 360 370 380 390 400 410 420  
 TGGGAAAGAA GATAGTACGTC AGCTGTGATA ATGTCAGCT AAAAGGGAGAA CGCATGCTG GACAGCTGAA  
 430 440 450 460 470 480 490  
 TGTAGCGCG ACGATGCGCG AACTAGATTC TACACATTG GAAAGAAAAG TTATCCTGCG AGCACTTCAT  
 500 510 520 530 540 550 560  
 CGACCGACTG GATATATACA AGCAAGACTT ATTCGACCGAG AAACAGGGCA GGAACACGCA TATTTCTTT  
 570 580 590 600 610 620 630  
 TAAAGTTAGC AGGAAATGCG CGACTAAAAA CAATACATAC AGACAAATGCC AGCAATTTCG CGAGTCTAC  
 640 650 660 670 680 690 700  
 CGTTAAAGCG CGCTGTTGGT CGCGCGGAAAT CAACGAGGAA TTGCGAATTG CCTACAAATCG CGAAAGTCGA  
 710 720 730 740 750 760 770  
 CGAGCTAGAG AATCTATGAA TAAAGAATTA AADAAAATTA TAGGACAGGT AAGAGATCG GCTGAACATC  
 780 790 800 810 820 830 840  
 TTAAGACAGC AGTACAAATG CGAGTATTCA TCCACAAATTG TAAAAGAAAA GGGGGGATTG GGGGGTACAG  
 850 860 870 880 890 900 910  
 CGCAGGGGAA AGAATAGTAG ACATAATAGC AACAGACATA CAAACTAAAG AATTACAAAA ACAAAATTACA  
 920 930 940 950 960 970 980  
 GAAATTCAAA ATTTTGGGT TTATTACAGG GACAGGAGAA ATCCACTTTG GAAAGGGACCA CGAAAGCTCG

45

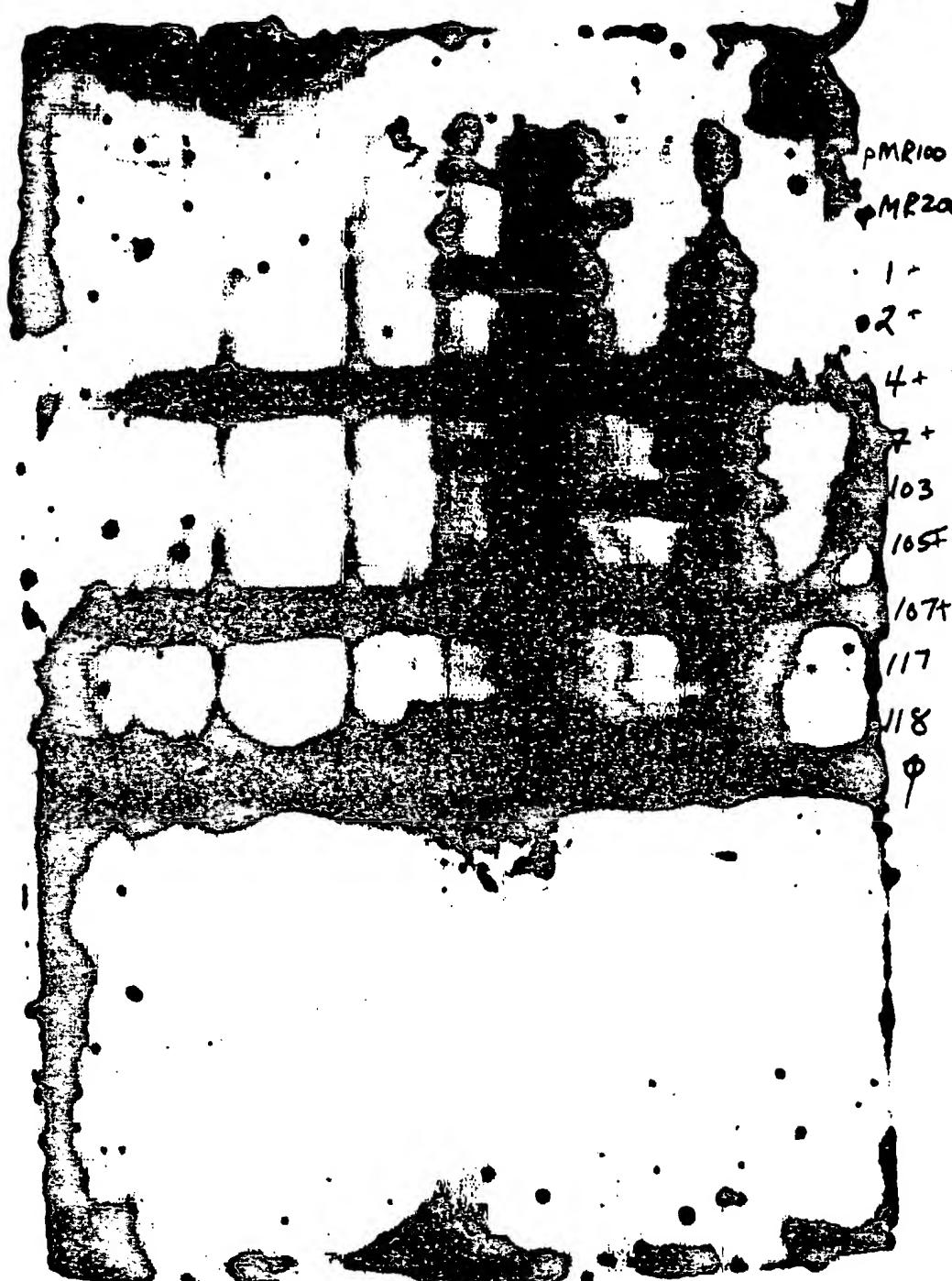
659339

2370 2400 2410 2420 2430 2440 2450  
 TGGAAACGAG CAAACGACAC TCTATTTTGT GGTCAAGATG CTAAGGATA TGATACAAAGG GGTACATAAT  
 2460 2470 2480 2490 2500 2510 2520  
 GTTTGGGCGA CACATCCCTG TGTACCCACA GGGCCGACG CACGAGAAGT AGTATTCGTA ATGTCACAG  
 2530 2540 2550 2560 2570 2580 2590  
 AAAATTTTAA GATGTCGAAA AATGACATGG TAGAACAGAT GGTCAAGATG ATAATCATT TATGGGATGA  
 2600 2610 2620 2630 2640 2650 2660  
 AACCTTAAAG CCAATGTTAA AATTAAACCCG ACTCTGTGTT AGTAAAGT GGTACTGTTT GAAAGAATGAT  
 2670 2680 2690 2700 2710 2720 2730  
 ACTAATGCGA ATAGTACGAG CGGGAGGATG ATAATGGAGA AACGGAGATG GAAAGACTGC TGTTCGATA  
 2740 2750 2760 2770 2780 2790 2800  
 TGAAGGAAAG CATAACAGGT AAGGTGCGAG AAGGATATGC ATTTTTTTAT AACGTTGATA TAATACCAAT  
 2810 2820 2830 2840 2850 2860 2870  
 AGATAAGGAT ACTACCAAGT ATAGGTTGAC AAGTTGTAAG ACCTCAGTC TTACACAGGC CTGTCCAAAG  
 2880 2890 2900 2910 2920 2930 2940  
 GGTACGGTGG AGCCATTGC CATACTTAT TGTGGGGGGG CTGGTTTTGC GATTCTAAA TGTAAATA  
 2950 2960 2970 2980 2990 3000 3010  
 AGTGGTTGAA TGGAAACAGGA GGTCAAGATG AGTACGATGT AGACATGGAA TTAGGGCACT  
 3020 3030 3040 3050 3060 3070 3080  
 AGTATGACT CAACTGGTGT TAAATGGAG TGTACCAAA GAAGAGGTG TAATTAGATC TGTCAATTC  
 3090 3100 3110  
 ACCGGACAAATG CTAACACCAT AATAGTACAGG CT

31

FIGURE 4

659339



38

**This Page is Inserted by IFW Indexing and Scanning  
Operations and is not part of the Official Record**

**BEST AVAILABLE IMAGES**

Defective images within this document are accurate representations of the original documents submitted by the applicant.

Defects in the images include but are not limited to the items checked:

- BLACK BORDERS**
- IMAGE CUT OFF AT TOP, BOTTOM OR SIDES**
- FADED TEXT OR DRAWING**
- BLURRED OR ILLEGIBLE TEXT OR DRAWING**
- SKEWED/SLANTED IMAGES**
- COLOR OR BLACK AND WHITE PHOTOGRAPHS**
- GRAY SCALE DOCUMENTS**
- LINES OR MARKS ON ORIGINAL DOCUMENT**
- REFERENCE(S) OR EXHIBIT(S) SUBMITTED ARE POOR QUALITY**
- OTHER:** \_\_\_\_\_

**IMAGES ARE BEST AVAILABLE COPY.**

**As rescanning these documents will not correct the image problems checked, please do not report these problems to the IFW Image Problem Mailbox.**